

HFC-Monitor

**Hand-Foot-Clothing Contamination Monitor
with large-area, thin-layer plastic scintillation detectors**



*Monitor for checking personnel
before leaving a radiation controlled area.*

System Characteristics

- modern detector technology based on thin-layer plastic scintillation detectors
 - no gas-filled detectors - therefore considerable reduction of operating costs
 - no gas supply required
- suitable for α and β/γ -contamination measurement
- measuring electronics based on industrial grade PC
- operator-friendly user interface, large-area colour-LCD display for indication of measurement values
- nuclide selection menu, user-related nuclide pre-selection possible
- hand probe detachable - therefore no additional frisker probe required
- integrated calibration software for quality check
- ergonomic housing design
- network-compatible
- link of HFC-monitors to central database with parameter setting features

SEA

Strahlenschutz- | Entwicklungs- | und Ausrüstungs-
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Technical Data

Detector type:	large-area, thin-layer plastic scintillation detectors (PSD) with ZnS-coating for α and β/γ measurements with integrated photomultiplier and detector electronics For typical sensitivities see chart
Measuring channels:	
• hands	2 PS-detectors (as desired also with 4 hand detectors) 1 detector per hand Start of measurement through light barriers
• feet	2 PS-detectors, 1 detector per foot
• body	right hand detector detachable for body measurement
Background subtraction:	with adjustable BG-measuring time, σ -threshold for new BG-measurement
Measuring electronics:	integrated industrial grade computer based on PC 104
Keyboard:	foil keyboard
Alarm:	separately adjustable for each detector
Measuring value display:	selectable in cps or nuclide-related in Bq or Bq/cm ² , integrated nuclide library
Measuring time:	adjustable in s
Display:	large-area, graphic colour LCD display 10.4"
Power requirement:	110 - 240 V, 50 - 60 Hz, 60 VA
Dimensions:	approx. 1160 mm x 830 mm x 700 mm (h x w x d)
Weight:	approx. 45 kg
Housing:	ergonomically shaped plastic/stainless steel housing
Interfaces:	- serial interface RS 232 - parallel printer interface - external keyboard - USB-port - network connection - relay output for alarms

Typical sensitivities:

C-14	8 %
Cl-36	42 %
Co-60	22 %
Sr/Y-90	45 %
I-131	20 %
Am-241 α	13 %
Cs-137	35 %

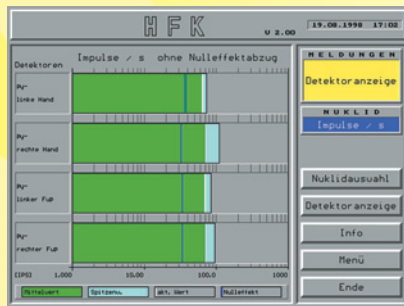


Fig. 1: Detector display count rates of all detectors for function check

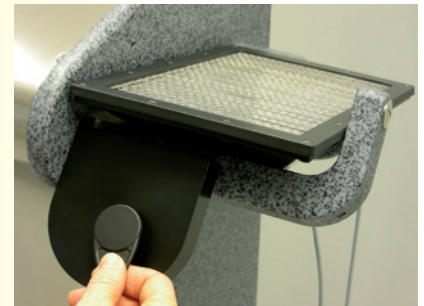


Fig. 3: Transponder for person-related measurement



Fig. 3: Version with 2 detectors per hand, horizontally mounted



Fig. 4: Version with 2 detectors per hand, vertically mounted